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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/760,427	01/21/2004	James I. Meyer	336-38	1232

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EXAMINER

REIFSNYDER, DAVID A

ART UNIT	PAPER NUMBER
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1723

DATE MAILED: 02/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/760,427

Applicant(s)

MEYER, JAMES I.

Examiner

David A. Reifsnyder

Art Unit

1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-8, 13 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1; the recitation of *“a bulb housing coupled with the vortex chamber, the bulb housing comprising a vortex destroyer disposed adjacent to the conical section apex... the bulb housing defining a settling chamber beneath the vortex destroy”* is vague and indefinite as to what part of the vortex chamber is coupled to the bulb housing and how the bulb housing can **comprise a vortex destroyer** and **define a settling chamber beneath the vortex destroyer.**

Regarding claim 20; the recitation of **“A vortex destroyer** according to claim 14, **configured relative to the bulb housing...**” can not be understood since claim 14 claims **“A vortex destroyer disposed within a bulb housing...”**

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Bose.

Regarding claims 1-13; Bose et al. discloses a hydrocyclone and method of using the hydrocyclone to separate particles from a slurry comprising:

flowing the slurry into a vortex chamber (16) via a tangential feed inlet (14) and generating a fluid vortex, the vortex chamber (16) comprising a conical section terminating at an apex (18), the apex (18) is removable coupled to a cylindrical bulb housing (28), the cylindrical bulb housing (28) surrounds a vortex destroyer which is disposed adjacent the apex (18), the vortex destroyer comprises a plurality of V-shaped fins (76), wherein the vortex destroyer contains the fluid vortex to the vortex chamber, the cylindrical bulb housing defining a settling chamber beneath the vortex destroyer that collects the particles;

flowing the fluid vortex through the apex (18);

containing the fluid vortex to the vortex chamber with the vortex destroyer;

permitting solid particles to move radially outward along the vortex destroyer; and

collecting the solid particles in the settling chamber. (Figure 4)

Regarding claims 14-20; Bose et al. discloses a vortex destroyer comprising a plurality of V-shaped fins (76) disposed within a cylindrical bulb housing adjacent a vortex outlet of a vortex chamber (16), wherein the vortex destroyer is configured to contain a fluid vortex to the vortex chamber (16). (Figure 4)

Response to Arguments

The applicant's arguments filed January 17, 2006 with respect to the 35 U.S.C. 102(b) rejection of all of the claims as being anticipated by Hakola have been fully considered and **are persuasive**. The 35 U.S.C. 102(b) rejection of **all of the claims** as being anticipated by Hakola **has been withdrawn**.

The applicant's arguments filed on January 17, 2006 with respect to the 35 U.S.C. 102(b) rejection of all of the claims as being anticipated by Martin have been fully considered and **are persuasive**. The 35 U.S.C. 102(b) rejection of claims **1-13** as being anticipated by Martin **has been withdrawn**.

However, the applicant's arguments filed January 17, 2006 are **moot** in regards to the new grounds of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David A. Reifsnyder whose telephone number is (571) 272-1145. The examiner can normally be reached on M-F 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda M. Walker can be reached on (571) 272-1151. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


David A Reifsnyder
Primary Examiner
Art Unit 1723

DAR